

AMENDMENTS

In the Specification

Please insert the following paragraph at page 1, line 4:

D1 This application claims benefit of U.S. Provisional Patent Application Serial Nos.: 60/128,689, filed April 9, 1999, and 60/153,453, filed September 10, 1999.

In the Claims

Please cancel claims 1, and 3-6.

Please amend claims 7-12, 14-18, 20-24, and 31 as follows.

D2 7. (Twice Amended) An attenuated *Pasteurellaceae* bacteria comprising a mutation in the atpG protein coding region set forth in SEQ ID NO: 3 or a species homolog thereof, said mutation resulting in decreased atpG biological activity, wherein the decreased atpG biological activity attenuates the *Pasteurellaceae* bacteria.

D3 8. (Amended) The *Pasteurellaceae* bacteria of claim 7 wherein the decreased atpG biological activity is decreased due to decreased gene expression of an atpG gene product encoded by the mutated atpG protein coding region.

9. (Amended) The *Pasteurellaceae* bacteria of claim 7 wherein said mutation results in expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

10. (Amended) The *Pasteurellaceae* bacteria of claim 7 wherein said mutation results in deletion of all or part of said atpG gene.

11. (Amended) The *Pasteurellaceae* bacteria of claim 7 wherein said mutation results in deletion of at least about 10%, at least about 20%, at least about 30%, at least about 40% at least about 50%, at least about 60%, at least about 70%, at least about 80%, at least about 90%, at least about 95%, at least about 98%, or at least about 99% of said atpG gene.

12. (Amended) The *Pasteurellaceae* bacteria of claim 7 wherein said mutation results in an insertion in the atpG gene, said insertion causing decreased expression of a an atpG gene product encoded by the mutated atpG protein coding region and/or expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

D4 14. (Amended) The *Pasteurellaceae* bacteria of claim 13 wherein the decreased atpG biological activity is due to decreased gene expression of an atpG gene product encoded by the mutated atpG protein coding region.

15. (Amended) The *Pasteurellaceae* bacteria of claim 13 wherein said mutation results in expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

16. (Amended) The *Pasteurellaceae* bacteria of claim 13 wherein said mutation results in deletion of all or part of said atpG gene.

17. (Amended) The *Pasteurellaceae* bacteria of claim 13 wherein said mutation results in deletion of at least about 10%, at least about 20%, at least about 30%, at least about 40% at least about 50%, at least about 60%, at least about 70%, at least about 80%, at least about 90%, at least about 95%, at least about 98%, or at least about 99% of said atpG gene.

24 18. (Amended) The *Pasteurellaceae* bacteria of claim 13 wherein said mutation results in an insertion in the atpG gene, said insertion causing decreased expression of a an atpG gene product encoded by the mutated atpG protein coding region and/or expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

20. (Amended) The *Pasteurellaceae* bacteria of claim 19 wherein the decreased atpG biological activity is decreased due to decreased gene expression of an atpG gene product encoded by the mutated atpG protein coding region.

21. (Amended) The *Pasteurellaceae* bacteria of claim 19 wherein said mutation results in expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

22. (Amended) The *Pasteurellaceae* bacteria of claim 19 wherein said mutation results in deletion of all or part of said atpG gene.

25 23. (Amended) The *Pasteurellaceae* bacteria of claim 19 wherein said mutation results in deletion of at least about 10%, at least about 20%, at least about 30%, at least about 40% at least about 50%, at least about 60%, at least about 70%, at least about 80%, at least about 90%, at least about 95%, at least about 98%, or at least about 99% of said atpG gene.

24. (Amended) The *Pasteurellaceae* bacteria of claim 19 wherein said mutation results in an insertion in the gene, said insertion causing decreased expression of a an atpG gene product encoded by the mutated atpG protein coding region gene and/or expression of an inactive atpG gene product encoded by the mutated atpG protein coding region.

26 31. (Twice Amended) An immunogenic composition comprising the bacteria according to any one of claims 7-24.
